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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,172	11/29/2001	David Lee Sandbach	9637-000037	9532

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HARNESSE, DICKEY & PIERCE, P.L.C.
P.O. BOX 828
BLOOMFIELD HILLS, MI 48303

EXAMINER

DINH, DUC Q

ART UNIT PAPER NUMBER

2674

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/980,172

Applicant(s)

SANDBACH ET AL.

Examiner

DUC Q DINH

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 1 and 13 recite the limitation processing means to process “a second data type”. Although the specification does mention “processing means to process second data type corresponding to the absence of a mechanical interaction with said input sensor ” (page 2, line 11, 15, 26, page 3 line 2 14, 20...), the specification is not enabling as to how one of ordinary skill would actually generate the second type and how it used for generate data representing first character and second character of data as claimed. In addition, there is no support in the specification for the limitation “an item of data of said second type”.

3. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed

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invention. The original disclosure, when filed, does not disclose the “data corresponding to a central position of a mechanism interaction with said input sensor, data corresponding to a first central position and data corresponding to a different second central position”, the disclosure, specifically page 2, line 6 through page 3, line 22 only teaches “*the positional data correspond to the position of a mechanical interaction with the input sensor... and processing means is configured to generate data representing a first character in response to processing an item of ... by positional data corresponding to first position ... to generate data representing a second character in response to processing an item of ... by positional data corresponding to a different second position*” However, data corresponding to a central position of a mechanism interaction with said input sensor, data corresponding to a first central position and data corresponding to a different second central position”, **were not disclosed in the original disclosure.**

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. The term "predetermined amount" in claim 11 is a relative term which renders the claim indefinite. The term "predetermined amount" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably appraised of the scope of the invention. It is not clear what amount the claim is referred to as “predetermined amount”.

Drawings

6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “ a second data type corresponding to the absence of mechanical interaction” and “an item of data of said second type”, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-6, and 13-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagao (U. S. Patent No. 6,532,003).

In reference to claims 1 and 19, Nagao discloses a processing apparatus having a control element for detecting a false touch. As discloses in Fig. 3, the data processing apparatus (corresponding to the processing means) includes a hardware layer and a software layer. The hardware layer receives data generated by an operation of the user, which may be referred to as

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coordinate data and key entry data. The software analyzes the received data and then executes predetermined processes corresponding to the data. The above-described hardware layer of the present invention includes a coordinate detecting device 1 for generating coordinate data by a touch on a coordinate input panel, a keyboard 2 for generating key entry data by pressing down a key of the keyboard 2, an I/O controller 3 for communicating the data from the coordinate detecting device 1 and the keyboard 2 to the software layer. The background art of the Nagao discloses in Fig. 2 process to detect touch and non-touch (corresponding to the positional data corresponding to the position of a mechanism interaction a second data type corresponding to the absence of a mechanism interaction) [col. 2, lines 6-44].

It would have been obvious for one of ordinary skill in the art at the time of the invention was made to provide the teaching of the background art, i.e.: detecting the touch and non-touch in the coordinate input device, for the data processing apparatus executes predetermined processes corresponding to the coordinate data from the coordinate detecting device 301 and according to the key entry data from the keyboard 302, in a parallel manner.

In reference to claim 2, Nagao discloses in Fig. 10 the input sensor 66 comprises a first and second conducting layers 60 and 61, each of the conducting layer having electrodes 62 and 63 (corresponding to the conductive tracks), driving circuits including transistors 55 and 56 for applying voltage between the pair of electrodes 62 on the conductive layer 60 and transistors 57 and 58 for applying voltages between the pair of electrodes 63 on the conductive layer 61. Voltages are applied to the conductor layers 60 and 61 by alternately switching on pairs of transistors 55, 56 and transistors 57, 58 (col. 5, line 58-col. 6, line 2).

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In reference to claim 3, Nagao discloses that the coordinate control part 51 retrieves coordinate data or commands from the storage part 52, which correspond to the voltage value corresponding to the X-coordinate and the Y-coordinate of the touch point obtained at the voltage detecting part 53. Then, the coordinate control part 51 outputs the thus obtained coordinate data or commands to the I/O controller 3. Also, the coordinate control part 51 controls the transistors 55, 56, 57 and 58 so as to alternately apply driving voltages to the conductive layers 60 and 61 (col. 6, lines 6-15).

In reference to claims 4-6, Nagao discloses that the coordinate control part 51 retrieves and creates coordinate data from the storage part 52 according to the voltage values corresponding to the X-coordinate and the Y-coordinate obtained at the voltage detecting part 53 (S22). Then, the coordinate control part 51 repeatedly checks the voltage values corresponding to the X-coordinate and the Y-coordinate sent from the voltage detecting part 53 so as to determine whether the detected touch is continuous (S23). If the detected touch is not continuous (S23, NO), the coordinate control part 51 clears the coordinate data created in S22 (S24), and waits for a subsequent touch. If the detected touch is continuous (S23, YES), the coordinate control part 51 creates switch data formed by a command corresponding to a command generated by a button of a mouse and coordinate data indicating a touch point, which may be indicated as a cursor, operating on the coordinate input panel 66 (S25). Finally, the coordinate control part 51 outputs the switch data to the above-described I/O controller 3 (S26) [col. 6, lines 36-55].

Claims 13-18 are method claims corresponding to the apparatus of claims 1-6 and therefore, rejected based on the same basis set forth in said claims.

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9. Claims 7-12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagao in view of Fullerton (U. S. Patent No. 6,426,868).

In reference to claims 7, Nagao discloses that the coordinate detecting device may be built-in to a data processing apparatus such as a portable personal computer. Since such a coordinate detecting device is used very frequently, the coordinate detecting device may be provided at the bottom of the keyboard. Therefore, the coordinate input panel may be falsely touched when operating the keyboard positioned above the coordinate input panel. This false touch may cause problems such as an offset of a key entry position and processing of invalid coordinate data. Fullerton discloses a handheld computer keyboard system as claimed.

It would have been obvious for one of ordinary skill in the art at the time of the invention was made to provide the processing apparatus of Nagao in the system of Fullerton for providing a data processing apparatus which can detect a false touch on the coordinate data created by a false touch on the coordinating detecting device during key entry operation, invalid unnecessary coordinate data and process key entry data other than the false coordinate data as valid coordinate data (col. 3, lines 19-24).

In reference to claims 8 and 20 Nagao discloses in Fig. 3, the two layers of the device wherein the hardware layer corresponding to the first processing for receiving signals from the input sensor and the software layer corresponding to the second processing means to process data to generate data corresponding to displayable characters.

In reference to claim 9, Nagao discloses that the coordinate detecting device may be built-in a portable personal computer (col. 1, lines 32-35).

In reference to claim 10, Nagao discloses the keyboard 3 in Fig. 3.

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In reference to claim 11, Nagao discloses that consider a case where data is input to the control part 8 as shown in FIG. 6A. The data is stored in the receiving buffer 12 (S1) and then it is determined whether the data is key entry data (e.g., character data) from the keyboard 2 (S2). If so (S2, YES), the time monitoring part 13 measures the keystroke time interval of the keyboard 2 according to the key entry data received at the receiving buffer 12 (S3). Note that the keystroke time interval is a time difference T_b between the previous reception time and the latest reception time of the key entry data (hereinafter referred to as a stroke interval). Also, the maximum stroke interval T_{max} up to that point is stored. When the stroke interval T_b does not exceed the maximum keystroke value T_{max} , it is determined that the keyboard 2 is under key entry operation. The maximum keystroke value T_{max} has a predetermined limit value so that the keystroke time intervals exceeding the limit value will not be stored as the maximum keystroke value T_{max} . Therefore, the maximum keystroke value T_{max} varies within a range below the limit value. After monitoring the keystroke time interval T_b , the data creating part 15 creates key entry data to be sent as transmission data (S4) and then sends the transmission data to the upper layer operating system 6 and the application 7 (S5). When there is a successive key entry operation as shown in FIG. 5 (S6, YES), the control part 8 repeats steps 1 to 6 (col. 7, lines 4-31).

In reference to claim 2, refer to the rejection as applied to claim 2.

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Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **DUC Q DINH** whose telephone number is **(703) 306-5412**. The examiner can normally be reached on Mon-Fri from 8:00.AM-4:00.PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive,
Arlington, VA Sixth Floor (Receptionist)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

DUC Q DINH
Examiner
Art Unit 2674

DQD

November 15, 2002



**RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**